

Lesson plan

Know your bike



Curriculum links

Design and technology

Pupils should be taught to:

- 3c. recognise that the quality of a product depends on how well it is made and how well it meets its intended purpose
- 4c. how mechanisms can be used to make things move in different ways.

English: Writing

Pupils should be taught to:

- 1c. use language and style that are appropriate to the reader.

Objectives

Pupils should be given the opportunity:

- to investigate and evaluate a range of familiar products, thinking about how they work, how they are used and the views of the people who use them.

Whole class introduction

- This lesson enables pupils to become more familiar with the functioning of their bikes. If possible, bring a bike into the lesson. You might like to invite a local bike mechanic or a keen cycling teacher or parent to provide the demonstration. The aim is for the pupils to see how someone would check that the tyres, brakes, chain, saddle and lights are all working safely.
- Tyres – use the pinch test. If the tyres feel soft when they are pinched they need pumping up. Also check to see that the tread has not worn away.
- Brakes – demonstrate how they work. Can the pupils describe what is happening? Explain that they should be checked before every ride to make sure that they are working and also that they're not rubbing against the tyres.
- Chain – can the pupils explain the purpose of the chain? What would happen if it was rusty or broken?
- Saddle – this should be secure and adjusted to the right height for the rider. When the rider is sitting on the saddle they should be able to fully extend their leg with their heel on the pedal when it is at its lowest position. If the saddle is at the correct height the leg muscles will be exercised efficiently.
- Lights and reflectors – check that the reflectors are secure and not covered in mud. Batteries should be fully charged so that the lights shine brightly. Can the pupils say where the lights should be positioned on the bike?

For further tips and advice about the functioning of bikes, please visit the Bikes and bits section of the CTC website www.ctc.org.uk.

Group and individual activities

- Ask the pupils to complete the interactive game **Build a bike**. This will reinforce the learning from the whole class introduction.
- Ask the pupils to make drawings of a bike. Begin by suggesting that they draw a section which includes at least two different materials. For example, the metal rim and rubber tyre on a wheel or the leather saddle and metal post that supports it.
- Can the pupils identify and list all the different materials which are used in the construction of a modern bike?
- Ask the pupils to prepare a 'beginner's guide' to maintaining their bicycle. To get them started ask them to respond to the following questions:
 - o What should you check before you ride your bike?
 - o What is the function of the reflectors and lights?
 - o How do you know that tyres are properly inflated?
 - o Why should a bicycle be clean?
 - o What would you expect to see in a basic cyclists-toolkit?

Plenary

- To check the pupil's recall, blindfold volunteers and challenge them to identify the different parts of a bike.
- Ask for another volunteer to act as a bicycle salesperson who wants to show off the bike's quality. Can he or she persuade the rest of the class that the bike is roadworthy, comfortable and efficient?

Activity sheets 7 and 8 can be used as an extension activity, homework or as part of this lesson to reinforce learning.

Extension activity

- Make a collection of pictures of different bikes and get pupils to select their favourite designs, based on style, performance, safety and comfort.

Bikeability action point

- Include this lesson as part of a 'bring your bike to school' day and then the pupils can show you how they check their bikes.
- Invite a 'Bike It' officer or cycling expert to school to help the pupils. (More information about Bike It officers can be found on the Sustrans website at www.sustrans.org.uk)

You may find that some of the bikes need immediate attention, so it's a good idea to inform the parents straight away.

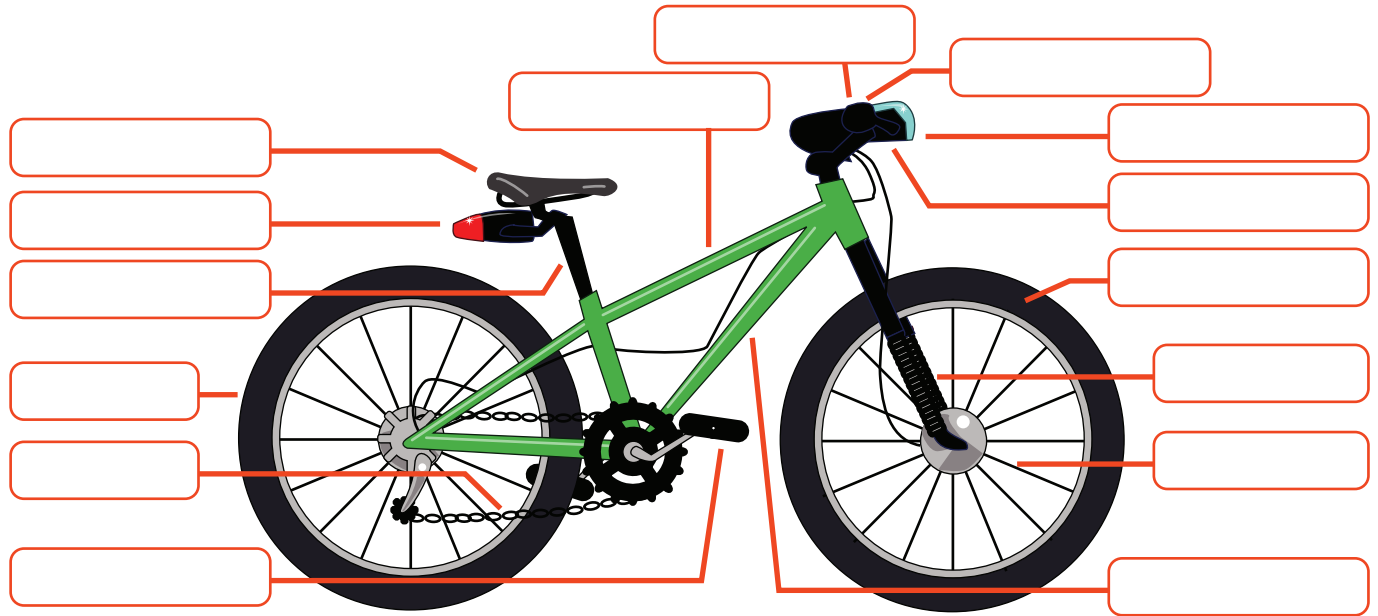
Activity sheet 7

Know your bike



Know your parts

Match the label to the correct part of the bike.



- | | | | | |
|-------------|------------|------------|-----------|-------------|
| Chain | Spokes | Saddle | Seat post | Pedal |
| Front wheel | Rear wheel | Top tube | Down tube | Front light |
| Forks | Handlebars | Brake grip | Bell | Rear light |

What should you always check before every ride?

Safety check

- ⚙
- ⚙
- ⚙
- ⚙
- ⚙

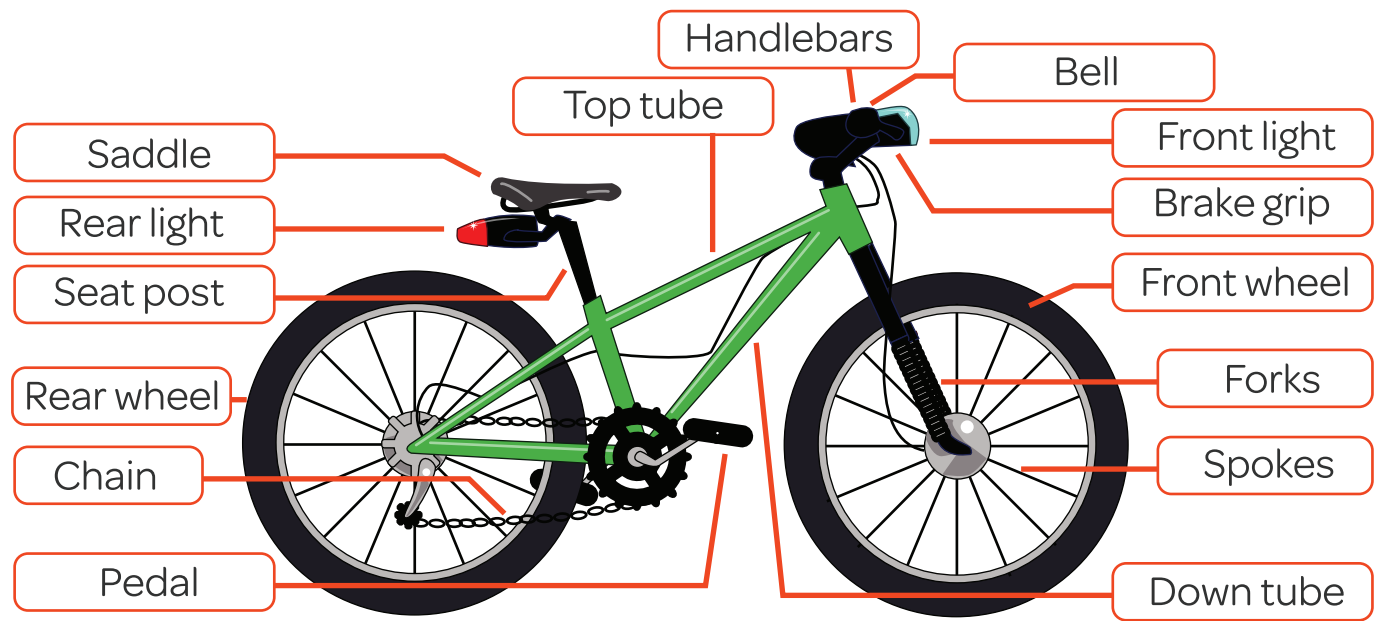
Activity sheet 7 - Answer Sheet

Know your bike



Know your parts

Match the label to the correct part of the bike.



Chain	Spokes	Saddle	Seat post	Pedal
Front wheel	Rear wheel	Top tube	Down tube	Front light
Forks	Handlebars	Brake grip	Bell	Rear light

What should you always check before every ride?

Safety check

- ⚙
- ⚙
- ⚙
- ⚙
- ⚙

Activity sheet 8

Know your bike



Fix it!

Kenny has bought a second hand bike, but it has a few faults. Write a letter from Kenny to the seller in which he describes the faults and why they are dangerous. He wants the seller to fix the faults as soon as possible.

Can you see what's wrong with this bike?



Dear Mr Biggs,

